This analysis aimed to assess if the early switch from IFNB to fingolimod impacts MS clinical outcomes and promotes better resource utilization in a Portuguese hospital perspective. **METHODS:** This analysis was based on TRANSFORMS phase III trial extension data. A cost-effectiveness model was developed to calculate the cost per relapse avoided with 4.5 years of continuous treatment with fingolimod (early treatment) versus 1 year of treatment with IFNB followed by a 3.5 years of treatment with fingolimod (delayed treatment). A Portuguese hospital perspective was adopted addressing only direct costs: drug, monitoring and relapses' treatment. Drug costs were based on Portuguese list prices, while the unit cost of each complication was obtained from the Diagnosis Related Groups tariff. The costs of relapses were derived from the Portuguese literature. **RESULTS:** Assuming there are 819 patients treated with IFNB that are poor responders, the early treatment with fingolimod resulted in more relapses avoided when compared with delayed treatment with fingolimod (2,211 versus 1,843). The early treatment with fingolimod led to an increase of drug acquisition costs, but reduced costs associated to monitoring and relapses' treatment. The total costs were 86,380,820€ for early treatment versus 79,257,091€ for delayed treatment. This represents an average incremental investment of 1,933€ per patient per year. The early strategy resulted an incremental cost effectiveness ratio of 19,358€ per relapse avoided when compared with the delayed strategy. **CONCLUSIONS:** Under the Portuguese hospital perspective, early treatment with fingolimod is expected to result in better clinical outcomes associated with a more efficient health care resources allocation.

PND21

COST ANALYSIS OF TWO AFTERCARE STRATEGIES IN CHRONIC CONTINUOUS INTRATHECAL BACLOFEN THERAPY IN PATIENTS WITH INTRACTABLE SPASTICITY

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OBJECTIVES: Intrathecal baclofen (ITB) therapy is indicated for use in the management of intractable spasticity. Patients treated with ITB are required to receive a pump refill at least once every three months in the hospital (standard care (SC)). Since SC can be very burdensome for both patients and informal caregivers, an alternative approach (Care4homecare) has been developed which enables patients to receive pump refills at home. Moreover, the use of specially trained nurse practitioners ensures that there is no reduction in effectiveness. We compared the costs of both strategies. **METHODS:** Resource use in both strategies was estimated using observational data of 38 adult patients with spasticity (due to e. g. multiple sclerosis or spinal cord injury) that are currently living at home. We then combined this data with expert opinion and the Dutch costing manual to estimate the total one-year costs from a societal perspective. **RESULTS:** Patients included in the analysis had on average an age of 52±14.4 years, 50% was men and patients scored on average 44±12.5 points on the Care Dependency Scale. The Care4homecare strategy involves care that is almost identical to SC and therefore can result in comparable direct medical costs. However, patients receiving Care4homecare do not incur any travel costs compared with SC patients (€489). In addition, the productivity costs of informal caregivers (SC €195; Care4homecare €40) and of patients treated with Care4homecare are less than the costs of patients receiving SC. From a societal perspective, the total costs of Care4homecare can be lower than that of SC. **CONCLUSIONS:** Care4homecare is an alternative approach to treat patients with intrathecal baclofen that can be cost-neutral from a health care sector perspective and cost-saving from a societal perspective. Moreover, it can be a welcome option for many patients and caregivers who want to avoid the burden of regular hospital visits.

PND22

COST ANALYSIS OF THE USE OF GLATIRAMER ACETATE COMPARED TO INTERFERON-Â IN PATIENTS WITH RELAPSING-REMITTING MULTIPLE SCLEROSIS AND SPASTICITY IN SPAIN

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OBJECTIVES: To analyze the costs associated with first-line use of glatiramer acetate (GA) compared to interferon-B (INF-β) in patients with relapsing-remitting multiple sclerosis (RRMS) and spasticity from the perspective of the National Health System of Spain. **METHODS:** A cost analysis of treatment and spasticity management with INF-β compared to GA for 6 months were analyzed. The clinical data were taken from the ESCALA study, which showed an improvement in spasticity in terms of spasm frequencies, muscle tone, and pain 3 and 6 months after the start of GA therapy. Unit costs for the resources used were taken from the BOTPLUS 2.0 database and available literature. The cost analysis is expressed in euros as of 2014, and a price discount of 7.5% was applied as set forth in Spanish Royal Decree 8/2010. **RESULTS:** The costs associated with the management of RRMS, spasticity, and relapses using GA and INF-β were €4,671.31 and €7,078.02, respectively, generating a cost savings of €2,406.72/patient, in favour of GA. **CONCLUSIONS:** The use of AG in the first-line treatment of patients with RRMS not only improves spasticity but it could be a strategy that offers savings cost after 6 months from the start of treatment. To initiate the treatment with AG and keep it in patients with optimal response would be a more efficient treatment option than INF-β.

PND23

SYSTEMATIC REVIEW OF THE ECONOMICS OF MULTIPLE SCLEROSIS IN LATIN AMERICA

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OBJECTIVES: To summarize published articles dealing with economic issues related to multiple sclerosis (MS) in Latin America. **METHODS:** We searched Medline, Embase, Scielo and LILACS using the key words "multiple sclerosis" and "esclerosis múltiple" plus "Latin America" and all country names. Full articles or abstracts from meetings reporting original research on cost or economic analyses, budget impact or resource utilization were obtained. No restrictions were placed on publication date or language. All work was done in duplicate by two independent reviewers with adjudication by consensus discussion. **RESULTS:** We identified 1482 papers, of which 27 were considered for analysis. There were 7 economic analyses (5 cost-effectiveness, 2 cost-utility), 5 budget impact analyses, 10 cost analyses (6 drug expenditures and 4 cost of illness), 4 on resource utilization and 1 on productivity loss. Studies were obtained from 5 countries (18 Brazil, 3 Argentina, 3 Colombia, 2 Mexico, 1 Chile). Mostly (22/27, 81%) were published as abstracts; 5 were published as full text articles (19%). Dates for these publications ranged from 2002 to 2013, with an exponential increase over time. The number of MS patients is increasing rapidly (71% increase in Brazil between 2006 and 2009). However, hospitalization rates (overall and per patient) have been decreasing, as newer more effective drugs have been increasingly used. Disease modulating therapies are predominantly used. Costs of care are quite high and have risen dramatically, e. g. >200% in Brazil between 2007-2012, with beta-interferons mostly used (78%). Some high cost drugs such as fingolimod and natalizumab have been found cost-effective over older drugs such as beta-interferons or glatiramer acetate in Mexico, Brazil and Colombia, with modest impact on budgets. **CONCLUSIONS:** Very little evidence related to cost of MS has been produced in Latin America. More research is needed to better support decisions regarding care of MS patients.

PND24

ALZHEIMER'S DISEASE: MEDICATION COSTS AND IMPACT OF GENERIC SUBSTITUTION

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OBJECTIVES: Alzheimer's disease has a substantial economic impact on patients, their caregivers and society. There are four cognitive enhancers commonly used in the treatment of Alzheimer's disease: three cholinesterase inhibitors (donepezil, rivastigmine and galantamine) and one NMDA receptor antagonist (memantine). Studies have indicated that the cost of cholinesterase treatment may be offset by savings in other health care costs. **METHODS:** The cost of medication on the South African market for Alzheimer's disease was analysed using June 2014 retail prices with the Defined Daily Dose (DDD) as unit cost indicator. A retrospective drug utilisation study was conducted on prescription data of a medical insurance scheme administrator for 2012. **RESULTS:** The cost per DDD for memantine was R26.20 (20 mg, two 10 mg tablets). For rivastigmine, the cost was R41.02 per DDD and for galantamine R27.72 per DDD (using the most convenient dosage strengths). These three products were all originator products. For donepezil, the originator and three branded generics were available. The cost of the originator was R27.86 per DDD, and for all three generics R16.29 per DDD. Only 32 patients were included in the drug utilisation study since not all medical aids reimburse these products. The average age of patients was 74.17 (SD=9.54) years, with 50% females. Only memantine and donepezil were prescribed. Donepezil accounted for 77.48% of prescriptions (of which 60.93% were generic prescriptions). The average Prescribed Daily Doses (PDDs) were 16.30 (SD=4.92) mg for memantine and 8.73 (SD=2.84) mg for donepezil. The most frequent PDDs for memantine was 20 mg (62.96% of prescriptions) and 10 mg (37.04% of prescriptions), and for donepezil 10 mg (65.96% of prescriptions) and 5 mg (29.79% of prescriptions). **CONCLUSIONS:** More South African studies on Alzheimer's disease treatment cost are needed that include the stage of the disease and adherence to treatment.

PND25

COSTS ASSOCIATED WITH THE USE OF ENZYME-INDUCING ANTI-EPILEPTIC DRUGS VERSUS NON-ENZYME-INDUCING ANTI-EPILEPTIC DRUGS: A SYSTEMATIC REVIEW

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OBJECTIVES: Several commonly prescribed enzyme-inducing anti-epileptic drugs (EIAEDs) stimulate the synthesis of some hepatic enzymes responsible for drug metabolism. This synthesis can lead to complications by altering endogenous metabolic pathways or by affecting the elimination of concomitant drugs thus increasing health care costs. This study aimed to systematically review published estimates of direct and indirect costs associated with the use of EIAEDs compared with non-enzyme-inducing anti-epileptic drugs (nEIAEDs) in patients with focal and generalised seizures, and to evaluate methodological differences between the studies. **METHODS:** Comprehensive electronic searches were undertaken using MEDLINE, EMBASE, Cochrane Library, EconLit, relevant conference proceedings and cost effectiveness analysis registries. All studies reporting any direct and indirect costs of AEDs for the treatment of patients with epileptic seizures were included. Study quality assessment was performed for every included study using a predesigned check list. **RESULTS:** Thirty-seven full-length articles and two abstracts reporting costs were reviewed. Two studies reported AED costs, drug-specific adverse event costs and non-drug health care costs subsequent to the initiation of each individual AED (medical visits, MRI scans, etc.). Six studies reported specific AED costs and the overall subsequent non-drug health care cost without stratification by event. Eighteen studies reported AED acquisition costs but did not report any other subsequent AED-related health care costs stratified by treatment. Thirteen studies reported the whole cost of illness with only a list of AEDs included. To date, no study has been specifically designed to compare the total costs between EIAED and nEIAED use, although some studies compared direct and indirect costs of several newer AEDs versus older AEDs. **CONCLUSIONS:** Insufficient data and heterogeneity in methodology prevent valid comparisons being made between the total cost of EIAEDs and nEIAEDs. More research is required to identify if meaningful differences in the total cost of treatment exist between EIAEDs and nEIAEDs.